

Consultancy-Style Research Projects: Information Session

University of Edinburgh



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Consultancy-Style Research Projects

Coordinators

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Consultancy-Style Research Projects

Why?

- Consultancy-Style Research Projects are a key part of the training for the MSc in SwDS.
- An MSc in SwDS without a Consultancy-Style Research Projects would be like an MSc in Chemistry without a lab experience.

Statistics with Data Science MSc

The Statistics with Data Science MSc programme is designed to train the next generation of statisticians with a focus on the newly recognised field of data science. The syllabus combines rigorous statistical theory with wider hands-on practical experience of applying statistical models to data.



Consultancy-Style Research Projects

Setup

- ↪ All consultancy-style projects will run in person in JCMB, so students will be required to be in Edinburgh from 29 May until 21 August to complete them.
- ↪ Due to Tier 4 visa requirements, project leaders are required to record in person attendance by Top Hat.
- ↪ **The university is required by law to report students not attending meetings for over 2 weeks to the Home Office. This may lead to cancellation of visa and expulsion.**
- ↪ Asynchronous Q&A will be handled through Piazza.

Consultancy-Style Research Projects

Dates

↪ Written component (90%)

↪ **Project 1** (45%)

↪ Initial meeting: Monday 29 May 2023

↪ Submission deadline of report: 12:00 pm on Friday 30 June 2023

↪ **Break:** Saturday 1 July 2023 – Sunday 9 July 2023

↪ **Project 2** (45%)

↪ Initial meeting: Monday 10 July 2023

↪ Submission deadline of report: 12:00 pm on Friday 11 August 2023

↪ Extension applications are allowed, but they are subject to human approval (i.e. not automatic).

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Dates

→ Communication skills component (10%)

- Format is individual poster + live presentation (somewhat similar to Statistical Research Skills, but done individually).
- Due to the 3 days required for printing about 80 posters in JCMB, deadline of submitting the posters will be on **9:00 am on Wednesday 16 August 2023**.
- Students who do not manage to submit by this time will be allowed to bring their own A1 sized posters printed out by themselves. Poster printing is available in Murray Library and Main Library, <https://www.ed.ac.uk/information-services/help-consultancy/ucrate/multimediafacilities/printing>, as well as at some external print shops.
- Presentations will be held in person on Monday 21 August 2023.

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Format

- ↪ For each project, an individual typeset report carefully describing the statistical techniques used for the analysis, results obtained, and corresponding interpretation of the results has to be submitted.
- ↪ The reports for each project have a word limit of 5000 words (this is roughly 20 pages, double spaced, of writing, but your project will likely be longer due to tables and figures).
- ↪ The work presented in the submitted report must be **your own independent work**. Submitted reports will be checked for signs of plagiarism using advanced AI tools, and may be sent to the School's Academic Misconduct Officer in case of suspected misconduct. **Some students did not get their MSc degrees in past years due to penalties for academic misconduct.**
- ↪ A couple of past reports (to serve as examples) will be uploaded on Learn in due time.

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Background material/Initial meeting

↪ **Background material**

- ↪ One week prior to the initial meeting, supervisors will upload on Learn appropriate background material including the data, a summary of the problem, and background reading.

↪ **Initial meeting**

- ↪ For each project, there will be a kick-off meeting where the research expert/industrial partner will introduce students to the problem to be investigated. This will provide an opportunity for students to interact with the expert and to ask questions.
- ↪ This will be an in person meeting in JCMB, and it will also be recorded and posted on Learn.

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Drop-in sessions

- ↪ There will be weekly drop-in sessions for students for the duration of the project.
- ↪ This is where you will be able to
 - ↪ Seek advice.
 - ↪ Get feedback.
 - ↪ Regularly check your work with the supervisors.
- ↪ The word here is **proactivity**!
- ↪ These will also be held in person in JCMB.

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Feedback

- ↪ For students who submit their work by the deadline of 30 June 2023 (i.e. do not obtain extension), feedback on the first project report will be given within 15 working days of submitting it.
- ↪ This feedback will be useful for the preparation of the second report.
- ↪ A marking scheme will be made available a week before the start of the first project.
- ↪ The marking scheme emphasises the usefulness of the contents of the report to the client, and 60% of the overall mark will be assigned according to the criteria whether this report is presentable to the client.
 - ↪ It is practically impossible to create work that is of interest to the client without regular weekly discussions with your project supervisors and the expert.
 - ↪ For example, a report mainly consisting of literature review without significant **data analysis** aiming to answer relevant questions in the project will score very poorly on this criteria. As a result, such reports may get an overall mark of 20-30 (out of 100).

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Communication

- ↪ The communication component will be an individual poster presentation in person.
- ↪ You will be required to choose **one** of your two projects and present your results on a poster.
- ↪ Your poster in **A1 size** for **one** project will need to be uploaded in Learn by **9:00am on Wednesday, 16 August**.
- ↪ Submissions on Learn will still be possible until 5:00 pm on Friday, 18 August with no late penalties. Students who do not upload their poster by 9:00 am on Wednesday will have to print it out themselves, otherwise they will not be able to present it and get 0 marks for the poster component.
- ↪ Presentations will happen in person on Monday, 21 August. The schedule will be announced in due time.

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Projects' areas for this year

- ↪ You will have the opportunity to state your preferences between projects for each set of projects on the survey <https://forms.office.com/e/NVBvAA6HcA>.
- ↪ Please submit your preferences before 5:00 pm on 21 April.
- ↪ Students who do not submit their preferences by this deadline will be allocated to the least popular projects.

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Choices for first project

- ↪ Understanding the impact of age demographics on hospital admissions in Scotland (Public Health Scotland)
- ↪ Property insurance risk assessment: using public data to estimate building features that affect insurance value (Simply Business)
- ↪ Network Security: Exploring the Use of Autoencoders and Variational Autoencoders for Anomaly Detection in Cyber Security (Lloyds Banking Group)

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Choices for second project

- ↪ Understanding the product performance of Fouling Control Coatings (AkzoNobel)
- ↪ Earthquake forecasting (School of Geosciences)
- ↪ Investigating demographic parameters in birds: Effect of fitness, species' interaction and climate change

Thank you for your patience!

Questions?